

Application No.: 09/509,869

Docket No.: 21547-00268-US

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) Threaded implant for obtaining reliable anchoring in bone substance, the bone substance being provided with a hole in whose side wall an internal threading may be established which can cooperate with an external threading on the implant for reliable anchoring and healing-in of the implant in the bone substance, wherein the implant threading is arranged to force the bone substance out in essentially radial directions as a function of the extent to which the implant is screwed into the hole, that the implant threading has a slight conicity which extends along most or part of the length of the implant and which cooperates with a circular cylindrical hole in the bone substance to effect greater forcing out of the bone substance at the outer parts of the hole than at the inner parts of the hole, the degree of forcing out being adapted in relation to the softness of the bone substance in order to achieve the reliable anchoring, and that said conical threading comprises two or more thread spirals which provide a tight threading which permits effective integration with the bone substance during the healing-in process and counteracts deformation or breaking-up of fine bone trabeculae which surround the hole in the bone, and wherein the front portion of the implant is designed with a conical thread which has a conicity exceeding the conicity of the slightly conical thread.

2. (Previously Presented) Implant according to claim 1, wherein the implant threading is arranged to ensure that the pressure between the bone substance and the implant has essentially a constant or slightly increasing value during the greater part of the operation of screwing the implant into the hole.

3. (Canceled)

4. (Previously Presented) Implant according to claim 1, wherein the conicity of the slightly conical thread is chosen between 0.1 - 0.4 mm or has an angle of inclination of about 0.5 - 2°, and/or the thread conicity of the thread at the said front portion of the implant is of the order of 0.4 - 0.8 mm or with an angle of inclination of about 10 - 15°, and the front portion of the implant has a length or height of about 10 - 30% of the length of the threaded part of the implant.

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5. (Previously Presented) Implant according to claim 1, wherein the implant threading along at least part of the longitudinal direction of the implant is given a noncircular or eccentric configuration for the purpose of obtaining improved rotational stability of the implant in the recently inserted state or the incorporated state of the implant in the bone substance.

6. (Previously Presented) Implant according to claim 5, wherein the implant is arranged with a minimum diameter which corresponds to or is slightly greater than the diameter of the hole in the bone substance.

7. (Previously Presented) Implant according to claim 1, wherein the front portion of the implant has a circular or concentric thread which merges gradually into a non-circular or eccentric thread on the remaining part or parts of the implant.

8. (Previously Presented) Implant according to claim 7, wherein the peripheris of the different non-circular or eccentric thread cross-sections have bevelled corners.

9. (Previously Presented) Implant according to claim 7, wherein the non-circularity is arranged such that areas of maximum diameter are displaced in the peripheral direction from one thread turn to the next thread turn.

10. (Previously Presented) Implant according to claim 1, wherein the number of thread spirals is two, three or four.

11. (Canceled)

12. (Canceled)

13. (Previously Presented) Implant according to claim 1, wherein the bone substance is a jaw-bone.

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14. (Previously Presented) Implant according to claim 1, wherein the bone substance is soft.

15. (Previously Presented) Implant according to claim 5, wherein the implant is arranged with a minimum diameter that is 1-5% greater than the diameter of the hole in the bone substance.

16. (Previously Presented) Threaded implant for obtaining reliable anchoring in bone substance, the bone substance being provided with a hole in whose side wall an internal threading may be established which can cooperate with an external threading on the implant for reliable anchoring and healing-in of the implant in the bone substance, wherein the implant threading is arranged to force the bone substance out in essentially radial directions as a function of the extent to which the implant is screwed into the hole, that the implant threading has a slight conicity which extends along most or part of the length of the implant and which cooperates with a circular cylindrical hole in the bone substance to effect greater forcing out of the bone substance at the outer parts of the hole than at the inner parts of the hole, the degree of forcing out being adapted in relation to the softness of the bone substance in order to achieve the reliable anchoring, and that said conical threading comprises two or more thread spirals which provide a tight threading which permits effective integration with the bone substance during the healing-in process and counteracts deformation or breaking-up of fine bone trabeculae which surround the hole in the bone, wherein four thread spirals are arranged together with four cutting edges.